THE FOUR MODES OF MOBILITY

By

Bryan Gerritson

HV1708
G321

M.C. MIGEL LIBRARY
AMERICAN PRINTING
HOUSE FOR THE BLIND

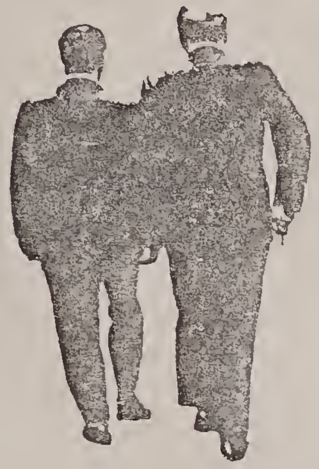
c.1

UTAH SCHOOL FOR THE BLIND

The Four Modes of Mobility

Mobility is defined as the ability to travel from one place to another. There are four basic modes of mobility utilized by most visually impaired persons to travel.

One very common method employed is to use a sighted guide. In this method, a blind person grasps the arm of a sighted person just above the elbow in order to travel with him. The sighted person should never take the blind person's arm and thereby push him ahead into the unknown. Instead, the blind person should grasp the arm of the sighted person, who can then lead him rather than push him. In this way the blind person will always walk about a half step behind his sighted guide. This method is very dependent on the time and travel plans of the sighted guide.



The most common independent mode of mobility is the use of the long cane. Historical notes, literature, and even the Bible record that some blind people have used a long staff or stick to get around throught time. In December, 1930 the City Council of Peoria, Illinois passed the first special ordinance giving blind pedestrians with a white cane the right-of-way, illustrating that the white cane was in fairly common use by the blind by this time. However, the canes in use were mainly the short wooden canes, and were primarily used for identification purposes by the blind. At that point there were no schools or centers for the blind who taught travel skills by use of the cane.

During World War II, governmental concern grew that some type of counseling and training needed to be offered to the large number of veterans that were being blinded in the war effort. As a result, a "Corrective Rehabilitation" program was established at the Valley Forge Hospital within the Veterans Physical Medicine and Rehabilitation Department. Sgt. Richard Hoover, a physical education instructor at Valley Forge assigned to work in this new program, insisted the blind were terrible travelers. He claimed that there were two problems with the canes, then being used: they were too heavy and too obtrusive. He suggested a lightweight and long one, and approached the Summerhill Tubing Co. to help manufacture his ideas. He then devised a method for teaching travel skills to the blind with these new, longer canes. For many years both the canes and the techniques bore his name. However, after several modifications, we merely call it the "long cane," and the "touch technique," rather than the "Hoover technique".

Later, the rehabilitation training of blinded veterans was expanded to Avon Farms Hospital in Connecticut and at the Hines Veterans Hospital outside Chicago.

The Utah Eagle
Vol. 90, No. 5
February, 1979

(It might b
his internsh
1960 and '6.
graduate le
new instruct
Since that
developed o
instructors.
for blind chi
for visually
privately an
offer orienta
the long can

A third
guide dogs.
mals have b
them in trav
reveal that
around a g
person, and
vidual held
get around.
the United S
1929 by the
ing Eye an
were subse
however, th
blind person
their travel
of all blind
use a guide
be noted th
when to cr
where to g
guide dog s
get orientati
a cane) bef
information
article in t
Utah Eagle.

HU1708
G 321
copy [illegible]

IND

ters for the
by use of

nmental con-
unseling and
to the large
eing blinded
a "Corrective
stablished at
in the Vete-
Rehabilitation
ver, a physi-
Valley Forge
program, in-
travelers. He
oblems with
ey were too
suggested a
approached
help manu-
sed a method
e blind with
many years
ues bore his
al modifica-
'long cane,"
her than the

training of
led to Avon
t and at the
ide Chicago.

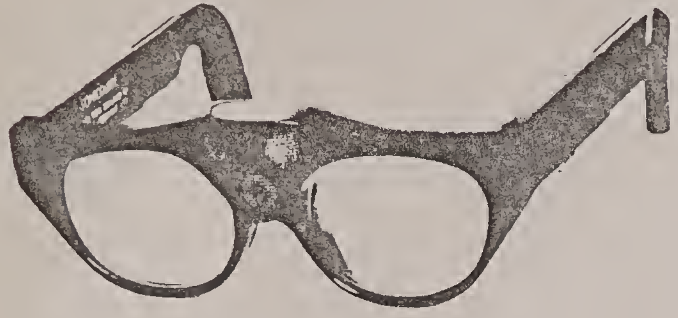
(It might be noted that the author served his internship in mobility at Hines.) In 1960 and '61 university programs on the graduate level were established to train new instructors in Orientation and Mobility. Since that time, other schools have been developed on the graduate level to train instructors. As a result, residential schools for blind children and rehabilitation centers for visually impaired adults, operated both privately and by states, almost universally offer orientation and mobility training with the long cane.

A third mode of mobility is the use of guide dogs. History records that other animals have been used by the blind to assist them in travel. For instance, some writings reveal that in the 1700's a rope was tied around a goose to help guide one blind person, and that in the 1800's a blind individual held onto the tail of a donkey to get around. The first guide dog school in the United States was founded in February 1929 by the Seeing Eye, Inc. Both the Seeing Eye and other guide dog schools that were subsequently established realized, however, that only a limited number of blind persons would or could use dogs for their travel needs. In fact, only about 1% of all blind or visually impaired persons use a guide dog to travel. It should also be noted that a guide dog does not know when to cross a street, when to turn, or where to go on its own, and that most guide dog schools encourage candidates to get orientation and mobility training (with a cane) before getting a dog. (For more information on guide dogs, see the author's article in the November 1978 issue of the **Utah Eagle.)**

The fourth mode of mobility is electronic travel aids. Such devices are not new, and dozens of various models have been introduced to the market. Newspaper articles often carry descriptions of some of these aids. Contrary to what these articles often imply, however, it should be emphasized that none of the electronic travel devices are miracle travel tickets, nor will they give the blind instant abilities to travel independently.

Four electronic devices in particular should be mentioned. One is the Russell Pathsounder. It is in the size and shape of a transistor radio, and is mounted on the user's chest. It helps to detect objects straight ahead and overhead, and is especially useful for deaf-blind persons, and blind individuals on crutches or confined to a wheel chair. A second aid is the laser cane. It sends out three laser beams which detect objects overhead, directly in front of the user, and drop-offs and curbs. The laser cane costs over $2,000 and is plagued with various factors that give it unrealiability at present. Its lower beam does not successfully detect shallow curbs or stairs, and the upper beam does not always detect branches or overhangs. The cane must be held correctly by the user; otherwise the middle beam will detect objects off to one side rather than directly ahead. Only a very small population is currently using the Pathsounder or laser cane.

A third device which is gaining fast momentum among the blind is the Sonicguide. The original concept for the Sonicguide was developed by Dr. Leslie Kay in 1959. Current models can be used by both young children and adults. The Sonicguide (originally called the Kay Aid or the Binaural Sensory Aid) has tremendous advantages and implications for concept development. Also, it is the only travel device that gives qualitative information. In other words, it not only tells the user that something is there, but also, after much training and practice, will help the user know what type of object it probably is, which side it is on, and about how far away it is. The adult model has 3 transducers mounted in the nosepiece of a frame of eyeglasses — one that emits a high frequency sound, and 2 that receive them back. The children's model often has the transducers mounted in a headband. The Sonicguide costs about $2,350 for the basic model



which is relatively inexpensive considering car that helps them travel. Unfortunately, like some other electronic devices, the Sonicguide doese not function well in temperatures over 95° F. or in the heavy rain or snow.

One final electronic aid worth a word is the Mowatt Sensor, developed by Geoff Mowat of New Zealand. It is a secondary aid to be kept in the pocket or purse until needed, then used as a hand-held device to "look" for guidelines and recognizable landmarks.

All modes of mobility are efforts to overcome travel restrictions experienced by visually handicapped persons in their environment.

— Mr. Bryan Gerritson,
Orientation and Mobility Instructor

Machine (me shēn') noun

Machine (me shēn') noun; an arrangement of fixed and moving parts for doing work each part having some special thing to do.

Ours is a world of inventions and advanced technology, but according to the students in Miss Matthies' middle one class, there are yet a few uncreated devices the world is greatly in need of . . .

My machine flys in the air and water. Fire comes out in the air and a big bubble goes around it in the water. Sharks can't pop the bubble. Only my friends can come in it. The inside has cool air so you don't burn.

— Jesse Arnold

I would make a machine that would let me fly by magic. I would fly to the moon. I would play with God.

— Michael Cole

My machine would clean sidewalks. My mom would be happy if I had clean feet. If I dropped my cookie I could pick it up and eat it.

— Chad Brinkerhoff

My machine helps me read. It tells me the letters when I forget.

— Suzanne Owen

This machine is like putting bad guys in a dungeon. It has a branding iron, blades, lobster pinchers, and scary pictures. There is also a good guy place where they can be safe. The bad guys steal money and shoot people and twist ankles to get in the dungeon machine. When they get out they act better.

— Stevie Snow

My machine makes castles with queens and kings and babies.

— George Youngdell

You put cat food, milk, fur, tails, bones, voice boxes, ears, and legs in the machine and out comes a kitty. If you just want a baby, you use skin and not fur. I will keep it in the cold back room. Ask me first if you want to use it. Don't forget to press the stop button when you are done.

— Cindi Vega

If you could invent any machine of your choice, what would it be?

— Miss Suzanne Matthies,
Teacher of Middle One Class

HV1708 Gerritson, Bryan. c.1
G321 THE FOUR MODES OF
MOBILITY.
(1979)

Date Due

HV1708 c.1
G321

Gerritson, Bryan.
THE FOUR MODES OF MOBILITY.

(1979)

DATE	ISSUED TO
	Reference Copy

AMERICAN FOUNDATION FOR THE BLIND
15 WEST 16th STREET
NEW YORK, N. Y. 10011